**A. Claims 1-7**

The Office Action asserts that Fig. 3 of Fukuda et al. and Figs. 14 and 15 of Bielle et al. show measurement start/end points of the claimed invention. This assertion is respectfully traversed.

Fig. 3 of Fukuda et al. shows calculating swivel correction angle. However, Fukuda et al. calculates direction (swivel correction angle) of an edge line of the workpiece based on several parallel measurements. On the other hand, the claimed invention calculates swivel correction angle based on X-axis and Y-axis coordinates at measurement start/end points, as recited in claim 1, and as similarly recited in claim 4.

Figs. 14 and 15 of Bielle et al. show automatic measurement methods only for obtaining measurement data, not for calculating swivel correction angle.

As recited in claims 1 and 4, the swivel (or inclination) angle is determined first, and correction length is calculated second based on the swivel (or inclination) angle (see page 18, line 18 to page 19, line 13 of the specification.).

Instead Bielle et al. only calculates correction length. Likewise, Fukuda et al. only calculates correction angle. Bielle et al. and Fukuda et al. do not disclose or suggest the correcting method of the claimed invention.

Furthermore, as recited in claim 1, the X-axis coordinates at measurement start/end points are set first, and Y-axis coordinates at the points are determined second, which is contrary to Fukuda et al.

Instead, in Fukuda et al., Y-axis coordinates are set first, and X-axis coordinates are determined second.

For at least these reasons, the combination of Fukuda et al. and Bielle et al. does not render obvious the subject matter of claims 1-7 under 35 U.S.C. §103(a). Withdrawal of the

rejection of claims 1-7 under 35 U.S.C. §103(a) over Fukuda et al. in view of Bielle et al. is respectfully requested.

**B. Claims 8 and 10-12**

Bielle et al. calculates correction amount from displacements of three apexes of the reference triangle, NOT from a center locus that is an inclination of the surface of the workpiece, as recited in claim 8.

The word "scanned" is added to emphasize the scanned data or locus of claim 8.

The Office Action asserts that the desired reference triangle is the "center locus" claimed (page 7, lines 13-14 of the Office Action). However, the center locus of the claimed invention is "an inclination of the surface of the workpiece," as recited in claim 8. In Fig. 10 of Bielle et al., inclined lines are more similar to the center locus of the claimed invention than the reference triangle shown as a horizontal line.

The inclined lines in Fig. 10 of Bielle et al. are calculated by two measured points, not scanned data or locus (a group of a lot of data), as recited in claim 8.

As recited in claim 8, the correction angle is determined first, and correction length is calculated second based on the correction angle (see page 18, line 18 to page 19, line 13 of the specification).

Instead, Bielle et al. only calculates correction length. Likewise, Fukuda et al. only calculates correction angle. Bielle et al. and Fukuda et al. do not disclose or suggest the correcting method of the claimed invention.

Support for the baseline as a movement locus of the moving means, as recited in claim 8, may be found at least with Fig. 11.

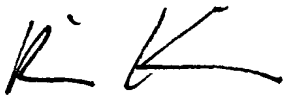
For at least these reasons, Bielle et al. does not anticipate the subject matter of claims 8 and 10-12 under 35 U.S.C. §102(b). Withdrawal of the rejection of claims 8 and 10-12 under 35 U.S.C. §102(b) over Bielle et al. is respectfully requested.

## II. Conclusion

In view of the foregoing amendments and remarks, Applicants submit that this application is in condition for allowance. Favorable examination and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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Attachment:
Appendix

Date: February 12, 2003

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DEPOSIT ACCOUNT USE AUTHORIZATION
Please grant any extension necessary for entry;
Charge any fee due to our Deposit Account No. 15-0461

APPENDIX

Changes to Claims:

The following is a marked-up version of the amended claims:

1. (Three Times Amended) A surface texture measuring machine for measuring a surface texture of a workpiece held on a workpiece orientation adjustment stage, the workpiece having an edge line, the workpiece orientation adjustment stage being movable in a measurement direction (X-axis direction) and in a direction (Y-axis direction) orthogonal with the X-axis direction within a horizontal plane and rotatable in a X-Y plane, the workpiece orientation adjustment stage being capable of seesawing in a direction (Z-axis direction) orthogonal with the X-axis direction within a perpendicular plane, and the surface texture of the workpiece being scanned by a sensor movable in the X-axis direction after adjusting orientation of the workpiece orientation adjustment stage, the surface texture measuring machine comprising:

a measurement controller for adjusting the orientation of the workpiece orientation adjustment stage; and

a measurement means being controlled by the measurement controller,

the measurement controller comprising: a surface texture measurement controller for measuring the surface texture of the workpiece; a X-axis coordinates input means for inputting X-axis coordinates at a measurement start point and a measurement end point in adjusting the orientation of the workpiece orientation adjustment stage; a Y-axis coordinates input means for inputting Y-axis coordinates at a measurement start point and a measurement end point in adjusting the orientation of the workpiece orientation adjustment stage; a swivel correction angle calculation means for calculating a swivel angle (an angle within the X-Y plane relative to X-axis) from the x-axis coordinates inputted by the x-axis coordinates input means and determining a swivel correction angle ~~(an absolute quantity~~

~~relative to the X-axis)~~ (an operation amount of length for adjusting the swivel angle to zero degree) based on the swivel angle and the Y-axis coordinates inputted by the Y-axis coordinate input means; and a swivel correction angle display for displaying the swivel correction angle calculated by the swivel correction angle calculation means,

the measurement means comprising: a swivel adjustment means which an operator can manually operate for rotating the workpiece orientation adjustment stage within the X-Y plane to adjust orientation thereof in accordance with the swivel correction angle displayed on the swivel correction angle display; and a Y-axis adjustment means which the operator can manually operate for adjusting orientation of the workpiece orientation adjustment stage by displacing the workpiece orientation adjustment stage in the Y-axis direction, wherein the X-axis coordinates at the measurement start point and the measurement end point are arbitrarily set, and the Y-axis coordinates at the measurement start point and the measurement end point are determined to be values on an edge line calculated based on values detected by moving the workpiece in the Y-axis direction with each arbitrarily set X-axis coordinates.

2. (Twice Amended) The surface texture measuring machine according to Claim 1, the measurement controller further comprising: a Z-axis coordinates input means for inputting Z-axis coordinates of the workpiece at the measurement start point and the measurement end point in adjusting orientation of the workpiece orientation adjustment stage; an inclination correction calculation means for calculating an inclination angle with a X-Z plane and an inclination correction amount (an operation amount of length for adjusting the inclination angle to zero degree) from the X-axis coordinates and the Z-axis coordinates inputted by the Z-axis coordinates input means; and an inclination correction display for displaying inclination correction amount calculated by the inclination correction calculation means, wherein the measurement means further comprises an inclination adjustment means

for manually displacing the workpiece orientation adjustment stage in Z-axis direction in accordance with the inclination correction amount calculated by the inclination correction calculation means for adjusting orientation thereof.

4. (Four Times Amended) An orientation-adjustment method of a workpiece using a surface texture measuring machine, the workpiece having an edge line, the workpiece orientation adjustment stage being movable in a measurement direction (X-axis direction) and in a direction (Y-axis direction) orthogonal with the X-axis direction within a horizontal plane and rotatable in a X-Y plane, the workpiece orientation adjustment stage being capable of seesawing in a direction (Z-axis direction) orthogonal with the X-axis direction within a perpendicular plane, and the surface texture of the workpiece being scanned by a sensor movable in the X-axis direction after adjusting orientation of the workpiece orientation adjustment stage, the orientation adjusting method comprising the steps of:

measuring positions of the workpiece relative to the sensor at a measuring start point and a measurement end point;

calculating orientation of the workpiece from the positions to determine an inclination angle of the workpiece to the measurement direction to obtain an absolute quantity of an orientation correction amount (an operation amount of length for adjusting the inclination angle to zero degree) based on the inclination angle;

displaying or printing the orientation correction amount; and

operating an adjustment means of the workpiece orientation adjustment stage in accordance with the displayed or printed orientation correction amount to correct the orientation of the workpiece, wherein the positions of the workpiece at the measurement start point and the measurement end point are determined based on an edge line calculated by moving the workpiece in the Y-axis direction.

8. (Four Times Amended) ~~An~~ leveling device for a surface texture measuring machine, the surface texture measuring machine comprising: a displacement detecting means movable in a measurement direction (X-axis direction) for measuring displacement (~~±~~Z-axis direction) on a surface of a workpiece; and a moving means for moving the displacement detecting means in the measurement direction to scan a displacement signal from the displacement detecting means, the surface texture measuring machine adjusting an amount of a workpiece stage relative to a base line as a movement locus of the ~~displacement detecting~~ moving means, the leveling device comprising:

a fulcrum for rotatably supporting the workpiece stage during measurement and adjustment and a point of action working relative to the fulcrum;

a manipulated variable calculation means for scanning the surface of the workpiece by the displacement detecting means and for calculating a center locus, an inclination of the surface of the workpiece, of measurement data based on a scanned displacement signal from the displacement detecting means to calculate an operation amount at the point of action relative to the fulcrum required for paralleling the center locus with the base line of the moving means;

an output means for displaying, printing or outputting as data the operation amount; and

an inclination adjustment means which an operator can manually operate to adjust the inclination of the workpiece stage relative to the X-axis on X-Z plane for manually adjusting inclination of a predetermined amount, wherein the operation amount is calculated in length by the manipulated variable calculation means from an inclination reference position where an inclination line connecting the fulcrum and the point of action of the inclination adjustment means is parallel with the base line of the moving means, based on the angle of the center locus relative to the base line of the moving means.